

**Abstract of the Disclosure**

A probe for measuring the surface temperature of a pipe includes a detector assembly and a rectangular strap. The detector assembly includes a rigid, unitary clamp member having a bottom, pipe engagement surface, an oppositely disposed upper surface, and first and second locking dogs extending upwardly from the upper surface. The locking dogs define a gap having a width  $W_G$ . A temperature sensor assembly is carried on the pipe engagement surface. The proximal end portion of the strap is mounted to the clamp member. The strap is flexible, longitudinally resilient and has a thickness  $T_U$  in an unstretched condition and a thickness  $T_S$  in a stretched condition, where  $T_U > T_S$ ,  $T_U > W_G$ , and  $W_G > T_S$ . The probe is mounted to the pipe by positioning the pipe engagement surface of the clamp member against the pipe, wrapping the strap around the pipe, and applying a tensile force to the distal end portion of the strap such that the thickness of the strap decreases from  $T_U$  to  $T_S$ . The strap is then positioned in the gap between the first and second locking dogs and the tensile force is removed. The strap expands to clamp the strap between the first and second locking dogs.